

# PROCEDURES TO FOLLOW WHEN A RELEASE/LEAK OCCURS (UST Systems)

BY

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# ASSESSMENT & REMEDIATION PROGRAM

- Also called Technical Sections 1 & 2 of the UST Branch
- Martha Martin – Chief of Section 1
- Joseph Curro – Chief of Section 2
- 5 project managers/450 leaking sites
- Investigate petroleum releases from USTs and oversee response, assessment, monitoring, risk evaluation, and remediation

# EMERGENCIES

- If you have a release or a spill that may affect State waters, land, air, or public health, immediately call MEMA at 1-800-222-6362.
- Call the local fire department and MDEQ Emergency Services.
- Follow up by reporting the release to MDEQ UST Branch and confirm that you reported the emergency to MEMA.

# EMERGENCY EXAMPLES

- ⦿ Free product from a tank or vehicle overfill that has run offsite
- ⦿ Free product or vapors that have impacted any utility
- ⦿ Free product from a dispenser that was compromised if the flow is not stopped by the shear valve
- ⦿ Large free product release even if confined to the facility







Figure 3. One of the sedans and the pickup after emergency responders extinguished the blaze. The Premium cargo tank truck is in the background.







# REPORTABLE RELEASES/LEAKS

- 1/8 inch or more of free product in a well
- Precision tightness test failure
- Inventory control records that reflect an overage/shortage greater than the regulatory limit
- SIR failure (1 month) or SIR inconclusive (2 consecutive months)
- Spill or overfill of 25 gallons or more
- Free product or vapors in soil, utilities, water, or other areas around a UST facility
- Unusual operating conditions of the UST system



# REPORTING RELEASES/LEAKS

- Report the release/leak to MDEQ UST Branch within 24 hours via call or email
- Take immediate action to prevent any further release of product
- Identify and mitigate fire, explosion, or vapor hazards properly
- Submit a written report within 10 days (form)

# 10 DAY REPORT FORM

Mississippi Department of Environmental Quality – Underground Storage Tank Branch				
Confirmation of a Release & Initial Abatement Activities - Page 1 of 2				
Submission of this completed form meets the report requirements for summarizing the initial abatement steps taken for a release as required in the Underground Storage Tank (UST) Regulations Section 280.62. Please submit this form within 10 days after the release confirmation by mailing to the address below, faxing to (601) 981-5093, or e-mailing to the attention of the appropriate UST project manager or to Martha Martin.				
Ownership of UST System			Location of UST System	
Contact:			Facility Identification Number:	
Tank Owner:			Name:	
Address:			Address:	
City:                      State:                      ZIP:			City:                      County:	
Phone number:			Phone number:	
Release Information				
DATE DISCOVERED:	DATE REPORTED TO MDEQ:	ESTIMATED VOLUME LOST:	DATE OF LAST PTT (attach results):	
		Gallons =		
HOW RELEASE DISCOVERED?				
<input type="checkbox"/> Leak Detection Method (i.e. monitoring wells, ATG, etc.). Attach copy of records.				
<input type="checkbox"/> Failed Precision Tightness Test (PTT). Attach copy of results. List failed components: _____				
<input type="checkbox"/> Drinking Water well contamination. Attach copy of laboratory results.				
<input type="checkbox"/> Tank Closure. Attach a copy of laboratory results. Results: _____				
<input type="checkbox"/> GW/Soil samples. Attach copy of laboratory results. Results: _____				
<input type="checkbox"/> Inventory Shortage. Attach copy of records.				
<input type="checkbox"/> MDEQ Inspection. Inspector/Findings: _____				
<input type="checkbox"/> Vapors in buildings, manways, etc. Location of vapors: _____				
<input type="checkbox"/> Visually found: __ surface sheen, __ floating petroleum, __ distressed vegetation. Location: _____				
<input type="checkbox"/> Other: _____				
IDENTIFIED BY:	SOURCE OF RELEASE:	CAUSE OF RELEASE:	TYPE CONTAMINATION:	EXTENT OF RELEASE:
<input type="checkbox"/> Owner/Operator <input type="checkbox"/> Third Party <input type="checkbox"/> Service Contractor <input type="checkbox"/> State Inspector <input type="checkbox"/> MDEQ Project Manager	<input type="checkbox"/> Tank <input type="checkbox"/> Piping <input type="checkbox"/> Surface Spill <input type="checkbox"/> Overfill <input type="checkbox"/> Dispenser <input type="checkbox"/> STP <input type="checkbox"/> Delivery Problem <input type="checkbox"/> Unknown <input type="checkbox"/> Other: _____	<input type="checkbox"/> Spill <input type="checkbox"/> Overfill <input type="checkbox"/> Physical/Mechanical Damage <input type="checkbox"/> Corrosion <input type="checkbox"/> Installation Problem <input type="checkbox"/> Unknown <input type="checkbox"/> Other: _____	<input type="checkbox"/> Floating Product <input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Waste Oil <input type="checkbox"/> Unknown <input type="checkbox"/> Soil <input type="checkbox"/> BTEX <input type="checkbox"/> PAH <input type="checkbox"/> Groundwater <input type="checkbox"/> BTEX <input type="checkbox"/> PAH <input type="checkbox"/> Vapors	<input type="checkbox"/> Tank Pit <input type="checkbox"/> Piping Trench <input type="checkbox"/> Dispenser Area <input type="checkbox"/> Beyond Construction Excavation <input type="checkbox"/> Off Site
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.				
Owner/Operator Name:		Owner/Operator Signature:		Date:

Produced by the Mississippi Department of Environmental Quality, Office of Pollution Control,  
 P.O. Box 2261 Jackson, MS 39225-2261, (601) 981-5171, Fax: (601) 981-5093

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# HIGH VAPOR READINGS IN LEAK DETECTION WELLS

- Report to MDEQ UST Branch within 30 days any vapor readings of 1000 ppm or greater for gasoline USTs, and 100 ppm for diesel, kerosene, or waste oil USTs
- UST Branch Procedures for Evaluating Vapor Readings in Dry Tank Pit/Piping Monitoring Wells (form)



# WEEKLY VAPOR MONITORING FORM

Mississippi Department of Environmental Quality (MDEQ)

9/30/2015

## Weekly Vapor Monitoring

Actions Required for High Vapor Readings in Leak Detection Wells at Underground Storage Tank (UST) Sites

UST Facility				Person Conducting Monitoring	
Facility Name		MDEQ Facility Use		Person's Name	
Physical Address				Company	
City	County	State	City	State	
		MS			
UST Owner				Person's Signature	

Well(s) with high vapor readings located:	Yes	No
Near a spill bucket? If yes, test the associated spill bucket(s). Use the Annual Spill Bucket Integrity Testing form and check reason for test as Release Investigation. Attach the results of test.		
Next to submersible turbine pump (STP) manway? If yes, check the STP head, leak detector, and pipe terminations for leaks. If the soil around the STP needs to be excavated to access these components, then do so. Attach a summary of findings.		
Next to a dispenser? If yes, check the dispenser and piping terminations for leaks. If the soil under the dispenser needs to be excavated to access the piping terminations, then do so. Attach a summary of the findings.		

Possible sources of the high vapor readings are: ☐ unknown ☐ listed below

\_\_\_\_\_

\_\_\_\_\_

Monitor leak detection wells and record findings in the table below:

- First, record the date and vapor readings for the monthly monitoring event which initiated this action.
- Ensure that the vapor monitoring instrument is calibrated in accordance with the instrument manufacturer's recommendations.
- For the next four weeks, record the date and the vapor readings in parts per million (ppm) for the leak detection wells. If the well is not dry, record findings as clear water, sheen, or free product in inches (example: 2").

Vapor readings (ppm)									
		Monitoring Well Number							
Vapor Reading	Date	1	2	3	4	5	6	7	8
Initial									
1 <sup>st</sup> Week									
2 <sup>nd</sup> Week									
3 <sup>rd</sup> Week									
4 <sup>th</sup> Week									

Please submit a copy of this completed form, test results, and summaries as required to the address below. Also, include a map/sketch of the UST system with monitoring wells numbered accordingly, and copies of the last six months of leak detection records for the UST system.

# USE A VAPOR METER TO SAMPLE WHEN WELL IS DRY



**Vapor meter must be calibrated monthly**

# PROCEDURES FOR DEALING WITH REPORTABLE RELEASES (MDEQ UST)

- MDEQ receives the call or email
- Leaking facility is logged into database
- A project manager is assigned
- The project manager sends out instructions as to the ongoing management of the release and requests records periodically as well as performing site visits periodically

# PROCEDURES AFTER THE INITIAL RELEASE (OWNER)

- ⦿ Removal of free product – 10-day bailing program, absorbent socks/pads, pump
  - Determining the cause of the release
  - Performing testing if needed
  - Repair equipment if needed
- ⦿ Vapor monitoring procedures (form)
  - Checking equipment near the wells with high vapors
  - Recording vapor readings once per week for a month

# IF FREE PRODUCT OR HIGH VAPORS CONTINUE

- ◎ If free product recurs after bailing or high vapors occur for at least 6 months
  - Determine Trust Fund eligibility
  - Assessment/Remediation



# DETERMINING TRUST FUND ELIGIBILITY

- ⦿ Last 6 months of leak detection records
- ⦿ Last spill bucket test
- ⦿ Last overfill prevention inspection
- ⦿ Last shear valve test
- ⦿ Last cathodic protection test
- ⦿ Precision tightness test all USTs and lines
- ⦿ Tank fees paid
- ⦿ No outstanding violations from inspection

# ASSESSMENT

## (Tank Owner Responsibilities)

- ◎ If a facility is deemed Trust Fund eligible, then the owner must:
  - Pick an Environmental Response Action Contractor (ERAC) - Consultant
  - Submit a Trust Fund Application
  - Review the Preliminary Subsurface Investigation information and/or proposal
    - Sign Trust Fund Paperwork (proposals, certification affidavits, etc.)

# SUMMARY

- ⦿ Communication is key.
- ⦿ If you have a release/leak, report it.
- ⦿ MDEQ UST Branch will guide you in the process of dealing with the release/leak.
- ⦿ Keep us informed as to what repairs or testing have been or need to be performed.